

## REMARKS

Applicants request favorable reconsideration of this application in view of the foregoing amendments and the following remarks. Of claims 1-9, 11, and 12 that were pending in the application, claims 1-4, 11, and 12 were rejected in the Office Action. By way of this Amendment, Applicants have: (a) amended claims 1, 3, 5, 11, and 12; and (b) canceled claim 2, without prejudice or disclaimer. Therefore, claims 1, 3-9, 11, and 12 remain pending for further consideration.

Applicants appreciate the indication of allowable subject matter in claims 5-9. In response to this positive indication, Applicants have opted to amend claim 5 to be in independent claim format. Accordingly, claims 5-9 should be in condition for allowance.

### **1. Information Disclosure Statement**

Applicants appreciate the indication that the Examiner has considered each of the references submitted with the Information Disclosure Statements filed on September 25, 2003 and on April 7, 2005. Applicants respectfully request a similar indication that the Examiner has considered (by way of Examiner initials) each of the references listed on the Form PTO/SB/08 submitted with the Information Disclosure Statement filed on August 8, 2005.

### **2. Rejection of Claims 1-4, 11, and 12 under 35 U.S.C. § 102(b)**

The Examiner rejected claims 1-4, 11, and 12 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,199,399 (“Shibuya”). Preliminarily, this rejection is now moot with respect to claim 2, which has been canceled herein without prejudice or disclaimer. Accordingly, this rejection will be addressed, and respectfully traversed, with respect to claims 1, 3, 4, 11 and 12.

#### **a. Claims 1, 3, 4 and 11**

As amended, claim 1 (*i.e.*, the claim from which claims 3 and 4 depend) recites a control apparatus for an automotive vehicle. This control apparatus includes, among other possible things (*italic and underline emphasis added*):

- a continuously variable transmission associated with a vehicular engine, including a belt that transmits a revolution of a primary pulley to a secondary pulley, and that is enabled to make a gear shift by modifying a pulley ratio between the primary and secondary pulleys with a hydraulic;
- a belt slip determining section that determines if a slip of the belt between at least one of the primary and the secondary pulleys occurs *when the vehicle is moving*; and

an output section that outputs a signal to command an engine control unit *to increase an engine idling speed by a predetermined engine speed when the vehicle stops moving*, wherein the output section outputs the signal when the belt slip determining section determines that the slip therebetween occurs.

Similarly, claim 11 recites a control method for an automotive vehicle, which includes, among other possible things: “a continuously variable transmission associated with an engine and including a belt that transmits a revolution of a primary pulley to a secondary pulley that is enabled to make a gear shift by modifying a pulley ratio between the primary and secondary pulleys with a hydraulic.” This control method includes, among other possible steps (*italic and underline emphasis added*):

ascertaining whether the vehicle is moving; and  
if the *vehicle is moving*:

- (a) determining if a belt slip between at least one of the primary and the secondary pulleys occurs; and
- (b) if belt slip occurs, outputting a signal to command an engine control unit *to increase an engine idling speed by a predetermined engine speed when the vehicle stops moving*.

For at least the following reasons Shibuya fails to teach or suggest the control apparatus recited in claim 1 or the control method recited in claim 11.

As shown in Figure 5 of the instant application, in step S301 it is ascertained whether the vehicle is moving (*i.e.*, if velocity of the vehicle is  $\neq 0$ ). If the velocity of the vehicle is  $\neq 0$  (*i.e.*, the vehicle is moving) control proceeds to steps S201-S205. In step S201, it is determined whether belt slip occurs (*i.e.*, if  $F = 1$ ). If belt slip occurs (*i.e.*,  $F = 1$ ), an increase in engine idling speed will thereafter be performed in step S205, at the next vehicle stop (*i.e.*, when the vehicle stops moving). Steps S301, S201, and S205 are recited in the method recited in claim 11 and the structure that performs these steps is recited in claim 1.

Shibuya teaches increasing the engine idling speed “to prevent” belt slip. *See, e.g.*, col. 6, lines 28-31, 59-66. In contrast to claim 1, however, Shibuya teaches that the adjustment in engine idling speed is performed upon detection of possible belt slip (*i.e.*, at a time of abrupt vehicle deceleration – *see* col. 7, lines 20-22) rather than at the next time the vehicle stops moving. As a result, Shibuya fails to teach or suggest at least the above-underlined/italicized limitations of claims 1 and 11.

As Shibuya fails to teach or suggest each of the limitations of claims 1 and 11, Shibuya can not be used to reject these claims, or any claim dependent thereon, under 35 U.S.C. § 102(b). Moreover, as claims 3 and 4 depend from claim 1, each of these dependent claims is also allowable over Shibuya, without regard to the other patentable

limitations recited therein. Accordingly, Applicants respectfully request a withdrawal of the rejection of claims 1, 3, 4, and 11 under § 102(b).

**b. Claim 12**

As amended, claim 12 recites a control apparatus for an automotive vehicle. This control apparatus includes, among other possible things (*italic and underline emphasis added*):

- an engine control unit;
- an oil pump, which serves as a hydraulic source, driven by an engine;
- a continuously variable transmission associated with the vehicular engine, the continuously variable transmission comprising:
  - a primary pulley;
  - a secondary pulley; and
  - a belt that transmits a revolution of the primary pulley to the secondary pulley, wherein the belt is enabled to make a gear shift by modifying a pulley ratio between the primary and secondary pulleys with the hydraulic;
- a hydraulic supplying section that supplies an original hydraulic and a control hydraulic to the primary and secondary pulleys to control the pulley ratio;
- an original hydraulic detecting section that detects a hydraulic pressure of the original hydraulic;*
- a hydraulic pressure determining section that is configured to determine whether a pressure of the original hydraulic of the hydraulic supplying section is equal to or below a predetermined hydraulic pressure when an engine idling is carried out during a vehicular stop on the basis of the hydraulic pressure of the original hydraulic detected by the original hydraulic detecting section; and*
- an output section that outputs a signal to command the engine control unit to increase the engine idling speed by a predetermined engine speed.

For at least the following reasons Shibuya fails to teach or suggest the control apparatus recited in claim 12.

The instant application teaches a CVT control unit 9 that receives a measured (*i.e.*, actual) primary pulley pressure  $P_{pri}$  from the primary pressure sensor 14 and a measured (*i.e.*, actual) secondary pulley pressure  $P_{sec}$  from the secondary pressure sensor 15. See ¶ [0024]. As a result, the CVT control unit 9 and the primary and secondary pressure sensors 14 and 15 define an original hydraulic detecting section. Further, the instant application also teaches that the engine idling speed is increased at vehicle stop (*i.e.*, when vehicle velocity = 0) on the basis of the actual line pressure  $P_L$  (*i.e.*, hydraulic pressure of an original hydraulic). See ¶ [0035].

Shibuya teaches increasing engine idling speed based on an *estimation* of hydraulic pressure that would typically be associated with a certain engine operating condition such as

an abrupt deceleration. *See, e.g.*, col. 5, lines 2-13. As a result, contrary to claim 1, Shibuya fails to teach or suggest "a hydraulic pressure determining section that is configured to determine whether a pressure of the original hydraulic of the hydraulic supplying section is equal to or below a predetermined hydraulic pressure," based on an *actual* original hydraulic pressure. Accordingly, Shibuya fails to teach or suggest at least the above-underlined/italicized limitations of claim 12.

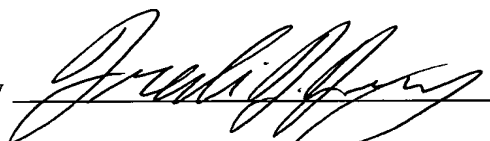
As Shibuya fails to teach or suggest each of the limitations of claim 12, Shibuya can not be used to reject the claim under 35 U.S.C. § 102(b). Accordingly, Applicants respectfully request a withdrawal of the rejection of claim 12 under § 102(b).

### CONCLUSION

For the aforementioned reasons, claims 1-9, 11, and 12 are now in condition for allowance. A Notice of Allowance at an early date is respectfully requested. The Examiner is invited to contact the undersigned if such communication would expedite the prosecution of the application.

Respectfully submitted,

Date April 5, 2006

By 

Customer Number: 22428  
FOLEY & LARDNER LLP  
3000 K Street, N.W.  
Suite 500  
Washington, D.C. 20007-5143

Pavan K. Agarwal  
Registration No. 40,888

Frederic T. Tenney  
Registration No. 47,131

Telephone: (202) 672-5300  
Facsimile: (202) 672-5399

Attorneys for Applicants

THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED REGARDING THIS APPLICATION UNDER 37 C.F.R. §§ 1.16-1.17, OR CREDIT ANY OVERPAYMENT, TO DEPOSIT ACCOUNT NO. 19-0741. SHOULD NO PROPER PAYMENT BE ENCLOSED HEREWITH, AS BY A CHECK BEING IN THE WRONG AMOUNT, UNSIGNED, POST-DATED, OTHERWISE IMPROPER OR INFORMAL OR EVEN ENTIRELY MISSING, THE COMMISSIONER IS AUTHORIZED TO CHARGE THE UNPAID AMOUNT TO DEPOSIT ACCOUNT NO. 19-0741. IF ANY EXTENSIONS OF TIME ARE NEEDED FOR TIMELY ACCEPTANCE OF PAPERS SUBMITTED HEREWITH, APPLICANT HEREBY PETITIONS FOR SUCH EXTENSION UNDER 37 C.F.R. § 1.136 AND AUTHORIZES PAYMENT OF ANY SUCH EXTENSIONS FEES TO DEPOSIT ACCOUNT NO. 19-0741.